

Application No.: 09/755714

Case No.: 55350US014

Remarks

Claims 1-16, 18-19, 22-27, and 30-38 are pending. Claim 17 has been cancelled without prejudice to their underlying subject matter. Claims 18 and 19 are amended. Favorable reconsideration of this application as amended is requested.

I. Objection to the Specification

The Office Action stated it is unclear in the specification on how the location of an item of interest within the interrogation area is determined based on M.P.E.P § 608.01(o). Applicants assert that there is clear teaching throughout the specification for how the location of an item of interest within the interrogation area is determined, for example on page 4, lines 11-15 and lines 19-33, page 5, lines 5-18, and page 6, lines 14-28. Therefore, Applicants respectfully request that the objection to the specification be withdrawn.

II. Double Patenting Rejection

The Office Action stated that claim 17 is a substantial duplicate of claim 1. Claim 17 has been cancelled and claims 18-19 have been amended to depend from claim 1. Therefore, Applicants respectfully request that the double patenting rejection be withdrawn.

III. § 103 Rejections

Claims 1, 4-17, 22-27, and 31-33 stand rejected under 35 USC § 103(a) as being unpatentable over U.S. Pat. No. 5,640,002 (Ruppert et al.) in view of U.S. Pat. No. 4,827,395 (Anders et al.). Claim 17 has been cancelled and the rejection against such claim will not be addressed.

The Office Action stated, "Ruppert does not disclose 'showing on the display an item of interest as a second graphical component relative to the first graphical component indicating a location within the interrogation area.'" Applicants respectfully point out that Ruppert also does not disclose, teach, or suggest "a user interface in which a representation of an interrogation area is shown on the display as a first graphical component," as recited in claim 1, for the reasons in the Office Action Response faxed on May 11, 2004.

BEST AVAILABLE COPY

Application No.: 09/755714

Case No.: 55350US014

The Office Action also stated that "Anders et al. ... is relied upon to teach such features as shown in figure 29, for the purpose of locating objects within an interrogation area (Anders, col. 36, line 36-61; col. 37, lines 11-26). Clearly, the graphical depiction of the location of an object within an interrogation area in the display of Anders et al. provides a visual representation to a user of where an object may be located." Applicants respectfully disagree for at least the following reasons.

In regard to independent claims 1, 22, and 24, Anders et al. does not disclose, teach or suggest a user interface in which *an interrogation area* is shown on the display as a *first graphical component* and *an item of interest* is shown on the display as a *second graphical component* relative to the first graphical component to *indicate a location within the interrogation area*. Anders et al. does not teach showing an *interrogation area* on the display as a first graphical unit. Instead, Anders et al. (in col. 26, lines 36-61) teaches an X, Y, and Z axis projection on the display 354, the position of the hand-held unit displayed as a "U" and the position of the lost object displayed as an "O." Anders et al. (in col. 37, lines 11-26) teaches tracing the movement of the object, displaying distance, time and speed. As a result, Anders et al. is displaying the location of the sought object relative to the location of the hand-held reader, not relative to the interrogation area. Therefore, Anders et al. does not teach *an interrogation area* shown on the display as a *first graphical component*. In addition, Anders et al. does not teach displaying an item of interest as a second graphical component *relative to the first graphical component* to *indicate a location within the interrogation area*.

In contrast, two embodiments of the present invention are illustrated in Figure 4 and Figure 2, including a user interface in which at least one graphic associated with the item of interest may be presented on the display for observation by a user. For example, if the scanned area is a single book shelf, the first component of the user interface may be a longitudinal bar graphic such as that shown in Figure 4 at 110, and the second component may be a highlighted portion of the bar as shown at 112. If the scanned area consists of multiple book shelves, as shown in Figure 2, then the first component of the user interface may be a graphical representation of multiple book shelves as shown at 130, and the second component may be a highlighted portion 132 of that graphic.

Application No.: 09/755714

Case No.: 55350US014

Therefore, independent claims 1, 22, and 24 recite elements not shown, taught, or suggested by the cited references, whether taken alone or in combination, and should be allowable. Claims 2-16 and 18-19, which depend from claim 1 and add further limitations, should also be allowable. Claims 25-27, which depend from claim 24 and add further limitations, should also be allowable. Applicants respectfully request the rejection of claims 1-16, 18-19, 22, and 24-27 under 35 U.S.C. § 103(a) of Ruppert et al. in view of Anders et al. be withdrawn.

In addition, claim 24 includes the recitation of including at least one light that is illuminated when an RFID tag is interrogated. This feature is not shown, taught, or suggested by the cited references, whether taken alone or in combination.

The Office Action states in regard to claim 24 that it includes "at least one light for providing information to the user." Applicants respectfully point out that claim 24 does not include such a recitation. Instead, claim 24 is as follows:

24. An RFID reader comprising:

- (a) an RFID interrogation source;
- (b) a processor;
- (c) a display; and
- (d) a user interface in which a representation of an interrogation area is shown on the display as a first graphical component of the user interface, and an item of interest is shown on the display as a second graphical component of the user interface relative to the first graphical component to indicate a location within the interrogation area and including at least one light that is illuminated when an RFID tag is interrogated, wherein the RFID interrogation source is coupled to the processor and the processor is coupled to the display.

Ruppert et al. does not show, teach or suggest including at least one light that is illuminated when an RFID tag is interrogated. Instead, Ruppert et al. teaches that if the read of a bar code was good, then there is a visible or audible indication of a good read. (See, Ruppert et al., column 60-64.) In fact, this audible indication of a good read is taught by Ruppert et al. only as it relates to bar codes, not as it relates to RFID tags. Ruppert et al. teaches that when RFID tags do not have a good read, a number of retries is attempted and then if the maximum numbers of retries has occurred, then block 1413 is performed to shut down the RFID tag reader. (See, Ruppert et al., column 29, lines 30-43.) Ruppert et al. does not show, teach, or suggest illuminating one light when an RFID tag is interrogated.

Application No.: 09/755714

Case No.: 55350US014

Anders et al. does not disclose, teach, or suggest including at least one light that is illuminated when an RFID tag is interrogated. Instead, Anders et al. teaches using light, sound, and vibration as a "pointer." Anders et al. teaches that if the unit were being used for horizontal location, and the object was off to the right, the right buzzer would sound louder, vibration would be greater and/or light would be brighter. The converse is true if the item being sought were to the left. If the object were straight-ahead, the lights, vibration, and sound levels would be equal. (See Anders et al., column 36, line 62 through column 37, line 2.) Anders et al. makes no mention whatsoever of repeatedly producing an audio signal at a desired interval to pace a user as to the speed at which the RFID tags should be interrogated.

Therefore, for this additional reason, independent claim 24 recites elements not shown, taught, or suggested by the cited references, whether taken alone or in combination, and should be allowable. Claims 25-27, which depend from claim 24 and add further limitations, should also be allowable. Applicants respectfully request the rejection of claims 24-27 under 35 U.S.C. § 103(a) of Ruppert et al. in view of Anders et al. be withdrawn.

In regard to independent claim 23, the Office Action stated Ruppert et al. does not disclose expressly "at least one audio signal for providing information to the user related to an interrogated RFID tag." Applicants respectfully point out that claim 23 does not include such a recitation. Instead, claim 23 is as follows:

23. An RFID reader comprising:

- (a) an RFID interrogation source;
- (b) a processor;
- (c) a display; and
- (d) a user interface in which an audio signal is produced repeatedly at a desired interval to pace a user as to the speed at which RFID tags should be interrogated, wherein the RFID interrogation source is coupled to the processor and the processor is coupled to the display.

Applicants respectfully submits that element (d) of claim 23 is not shown, taught, or suggested by the cited references, whether taken alone or in combination.

Ruppert et al. does not show, teach or suggest a user interface a user interface in which an audio signal is produced repeatedly at a desired interval to pace a user as to the speed at which RFID tags should be interrogated. Instead, Ruppert et al. teaches that if the read of a bar code was good, then there is a visible or audible indication of a good read. (See, Ruppert et al.,

Application No.: 09/755714

Case No.: 55350US014

column 60-64.) In fact, this audible indication of a good read is taught by Ruppert et al. only as it relates to bar codes, not as it relates to RFID tags. Ruppert et al. teaches that when RFID tags do not have a good read, a number of retries is attempted and then if the maximum numbers of retries has occurred, then block 1413 is performed to shut down the RFID tag reader. (See, Ruppert et al., column 29, lines 30-43.)

Anders et al. does not disclose, teach, or suggest a user interface in which an audio signal is produced repeatedly at a desired interval to pace a user as to the speed at which RFID tags should be interrogated. Instead, Anders et al. teaches using light, sound, and vibration as a "pointer." Anders et al. teaches that if the unit were being used for horizontal location, and the object was off to the right, the right buzzer would sound louder, vibration would be greater and/or light would be brighter. The converse is true if the item being sought were to the left. If the object were straight-ahead, the lights, vibration, and sound levels would be equal. (See Anders et al., column 36, line 62 through column 37, line 2.) Anders et al. makes no mention whatsoever of repeatedly producing an audio signal at a desired interval to pace a user as to the speed at which the RFID tags should be interrogated.

Therefore, independent claim 23 recites elements not shown, taught, or suggested by the cited references, whether taken alone or in combination, and should be allowable. Applicants respectfully request the rejection of claim 23 under 35 U.S.C. § 103(a) of Ruppert et al. in view of Anders et al. be withdrawn.

In regard to independent claim 31, there is no specific discussion anywhere in the Office Action about claim 31. Even if Applicants presumed that section 9 of the Office Action should have referred to claim 31, instead of claim 30 (which was previously cancelled), the text in section 9 only refers to "showing on the display an item of interest as a second graphical component relative to the first graphical component indicating a location within the interrogation area." Applicants respectfully point out that claim 31 does not include such a recitation. Instead, claim 31 is as follows:

31. An RFID reader comprising:

- (a) an RFID interrogation source;
- (b) a processor;
- (c) a display; and

Application No.: 09/755714

Case No.: 55350US014

(d) a user interface that displays an indication in a measurable unit of how far away from an item or location of interest an item currently being interrogated is located, wherein the RFID interrogation source is coupled to the processor and the processor is coupled to the display.

Accordingly, the applied rejection is believed to be faulty and a prima facie case of obviousness has not been established. If the Examiner proposes to provide any reasoning supporting the rejection then Applicants respectfully request a second non-final Office Action be issued, so that Applicants may learn what that reasoning is and reply to it. Therefore, Applicants respectfully request the rejection of claim 31 under 35 U.S.C. § 103(a) of Ruppert et al. in view of Anders et al. be withdrawn.

The rejection of claims 1, 4-17, 22-27, and 31-33 under 35 USC § 103(a) as being unpatentable over Ruppert et al. in view of Anders et al. has been overcome and should be withdrawn.

Claims 18-19 stands rejected under 35 USC § 103(a) as being unpatentable over Ruppert et al. in view of Anders et al., and further in view of U.S. Pat. No. 6,318,636 (Reynolds et al.). Claims 18-19 have been amended to depend from claim 1. Claim 1 is patentable for the reasons give above. Claims 18-19, which now depend from claim 1 and add further limitations, should also be allowable. Applicants respectfully request the rejection of claims 18-19 under 35 U.S.C. § 103(a) of Ruppert et al. in view of Anders et al. and further in view of Reynolds et al. be withdrawn.

Withdrawal of the outstanding rejections and allowance of the pending claims is respectfully requested. Reconsideration of the application is requested. If a telephonic conference would be helpful in resolving any outstanding matters in the present application, the Examiner is encouraged to contact applicants' undersigned representative.

Respectfully submitted,

November 9, 2004
Date

By: Melissa E. Buss
Melissa E. Buss, Reg. No.: 47,465
Telephone No.: (651) 733-0649

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833